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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

SUBJECT: Jack's Creek Modeling and Leachability Studies Report and Smelter Building Area Investigation Letter Report 10/95 DATE: 11/30/95

FROM: Barbara Okorn, ^{pkc}Biologist
Technical Support Section

TO: Garth Connor, RPM
Western Pennsylvania Remedial Section

BTAG has reviewed the subject documents and offers the following comments on behalf of FWS, NOAA, and EPA members.

The subject documents provide additional information that support and refine Alternative 2A, the remedy recommended the Addendum FS. This alternative includes consolidation, capping, and treatment of the soils. These soils are 1) outside the 100-year floodplain and have lead levels exceeding an action level of either 1,000 or 3,000 ppm and 2) floodplain soils to a depth of 2 feet with lead exceeding 500 ppm.

The investigator concludes from the "Modeling and Leachability Studies" that an action level of 3,000 ppm for upland soils is sufficiently protective of **area groundwater** (emphasis added) and "that by the time the groundwater reaches the nearest receptor of concern (Jack's Creek), [lead] concentrations would likely be below measurable levels." BTAG notes the modelled ground water lead concentrations associated with remedial alternatives proposed by the Group are below chronic Ambient Water Quality Criteria for lead in surface water. From the Smelter Investigation the Parson ES concluded, "Required remediation in the smelter building area can be limited to excavation and consolidation of areas of shallow contaminated soil, or to activities that otherwise mitigate risk, e.g., capping contaminated areas." The soil data used in developing this perspective was compared with data from the RI carried out by EPA,, but sampling locations and depths are not comparable.

The Former Smelter Building Investigation was conducted to further assess the magnitude, including depth, of lead contamination under and around the former smelter building and "to provide additional insight into the remediation of the Site as a whole." The Parson ES investigation was limited to subsurface soil (i.e., two feet and greater). The investigation results were compared to nearby soil samples collected by Gannett Fleming for the August 1993 Remedial Investigation (RI) report. Some of the Gannett sample locations had results for both surface

(i.e., 0 to 0.5 feet) and subsurface soil (i.e., 2 to 2.5 feet). Since the Parson ES samples did not include surface results (i.e., top two feet) and were not taken in the same location as, or immediately adjacent to the Gannett Fleming subsurface soil samples, we question the validity of comparing subsurface soil results from the two different investigations and we also question the conclusion that, "Based on available sample results, lead contamination in the smelter building is primarily in the shallow soil (0 to 2.5 feet)."

The Gannett RI samples from three locations in the smelter area show subsurface (2 to 2.5 feet) lead levels ranging from 6,330 to 159,000 ppm. The Parson ES subsurface results from six samples, taken near the Gannett samples, in the 2 to 4 foot interval have lead levels ranging from 9.16 to 279 ppm. The Parson ES report provides no explanation for the large difference in subsurface lead levels. We believe more testing is needed, including resampling of Gannett RI locations or immediately adjacent, of both the top (0 to 0.5 feet) and the subsurface (2 to 2.5 feet) levels, to conclusively determine that site contamination is primarily in the shallow soil and is not mobile.

The Parson ES October 1995 reports do not address or provide reason to change BTAG's May 17, 1995 comments¹. The decision not to remediate site upland soil with less than 3,000 ppm of lead and floodplain soils with less than 500 ppm of lead is not protective of ecological receptors exposed to these lead levels in upland or floodplain soil and Creek sediment.

In conclusion, we note the following:

- soil lead action levels of 3000 ppm for upland soil and 500 ppm for floodplain soil are not protective of ecological receptors;
- development, evaluation, and selection of remedial options for on-site, adjacent, and downstream areas should address all recommendations in BTAG's May 17, 1995 comments on the Group's Addendum FS; and;
- select surface and subsurface areas on-site need to be

¹BTAG's May 17, 1995 comments on the March 1995 Addendum FS provided recommendations for implementing more ecologically protective remedial levels (i.e. 200 ppm for lean in soil and 110 ppm for creek sediment, and 1 ppm for PCBs in both soil and sediment). We also noted the need for additional sampling in floodplain and creek areas adjacent to and downstream of the site. We requested that consideration be given to the environmental health and diversity of the creek and floodplain when developing, evaluating, and selecting remedial options.

resampled to determine if contaminants (especially cadmium, copper, lead, and zinc) are limited to the surface soil (0 to 2 feet).

We note three typographical errors in Table 2, "Analytical Results for Soil Borings by Gannett Fleming," of the Former Smelter Building Investigation. For sample SS-244 the total lead concentration should be 159,000 mg/kg instead of 159,00. The sample identified as SS-192 is in fact sample SS-291. The SS-291 sample was taken in the soil interval of 2 to 2.5 feet instead of 0 to 0.5 feet.

Thank you for the opportunity to offer these comments. If you have any questions, please feel free to contact me at x2365.